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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/688,834	10/17/2000	Toshio Koga	Q60831	1858

7590 06/27/2005

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

IRSHADULLAH, M

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/688,834	Applicant(s) KOGA, TOSHIO	
	Examiner M. Irshadullah	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. <u>5/25/05</u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. In view of the Appeal Brief filed on January 31, 2005, PROSECUTION IS HEREBY REOPENED. Non-Final Action is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

2. Arguments filed in the Appeal Brief have been fully considered and the current Office Action is set out below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takikita (US Patent 6,252,524 B1).

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Takikita teaches:

Claim 1. A vehicle-onboard electronic toll collection apparatus, comprising:

a) vehicle speed detecting means for detecting a speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system (Fig. 1 {31 in 30}, col. 6, lines 63-67, wherein CPU obtaining vehicle speed V from vehicle-mounted unit interface 31 in 30 via 101" indicating that "interface unit 31" is functioning as "speed detecting device or means", vehicle entering "toll collection communication zone" indicating vehicle's passing through some toll collection facility or gate having "road-side machine, Fig. 3, col. 7, lines 60-62" and "road-side machine" of toll facility is equipped with an electronic device or computer, col. 3, lines 17-20: "vehicle-mounted unit communicating with road-side machine which is automatically collecting a toll");

b) communication means for exchanging electronic toll collection information for settlement of toll charge/payment transaction with said toll gate station upon passing through said toll gate station (Col. 5, lines 7-9, wherein "communication unit 6 receiving radio signals from and sending to road-side machine" indicating "unit or device 6 is a "communication device or means inter-transmitting or exchanging communication between the vehicle-mounted unit and the road-side machine" and as discussed above the road-side machine representing "a facility or gate for toll or toll charge/payment collection when the vehicle goes or passes through it");

c) measuring means for measuring reception field intensity of the received electronic toll collection information within a communication coverage area (Col. 5, lines 15-20, wherein "radio wave detector portion or means 5" functioning as "determining or

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measuring device or means, lines 16-20" and the measuring means determining or measuring "strength of radio signal or reception field intensity", "toll data, line 19" is "toll collection information". The radio wave is received from road-side machine to vehicle-mounted unit or device antenna, col. 5, lines 7-9, and "toll collection zone, col. 5, lines 10-13" is "communication coverage area").

In the following element:

d) decision means for making decision on the basis of said detected vehicle speed and said measured reception field intensity as to a location within said communication coverage area where electronic toll collection information communication can be started while sustaining favorable reception field intensity at said detected vehicle speed, to thereby allow said communication means to perform communication processing on the basis of result of said decision.

Takikita teaches:

decision means for making decision on the basis of said detected vehicle speed and said measured reception field intensity as to a location within said communication coverage area where electronic toll collection information communication can be started while sustaining favorable reception field intensity at said detected vehicle speed, to thereby allow said communication means to perform communication processing on the basis of result of said decision (Col. 5, lines 15-22, wherein "radio wave detector 5 confirming the strength of radio signal, so that control unit or device or means 6 beginning communication with road-side machine" indicating radio wave detector

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portion's functioning as "decision maker or decision making device or means" and the decision would depend or base on {on the basis of} above discussed strength or intensity of received radio signal or reception field. The decision relating to "toll collection communication zone or communication coverage area, lines 15-19".

Moreover, "determining possibility of data communication for communication control unit 6 with road-side machine-lines 20-21" indicating that communication control unit 6 would begin or start with road-side machine, and said communication is possible only within above discussed "toll collection communication zone", one would inherently maintain or sustain the same as preferred or "favorable" one).

Takikita does not teach:

{decision means, as discussed above} making decision on the basis of said detected vehicle speed.

However, Official notice is taken that the feature is old and well known in the toll payment/collection art.

It would have been obvious to one of ordinary skill in the toll payment/collection art at the time of Applicant's invention to advantageously include the feature into Takikita's invention, thereby entailing a system enabling a user to take requisite steps at an appropriate time and thus preventing delay in the next action, such as inserting a card.

In the following claim:

Claim 2. An vehicle-onboard electronic toll collection apparatus according to claim 1, wherein said decision means is so designed as to sample distance data which

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ensure favorable reception field intensity than the reception field intensity at an entrance location of said communication coverage area on the basis of speed at which said motor vehicle enters said communication coverage area, to thereby generate distance versus-reception field intensity data.

Takikita teaches:

decision means is so designed as to sample distance data which ensure favorable reception field intensity than the reception field intensity at an entrance location of said communication coverage area on the basis of speed at which said motor vehicle enters said communication coverage area (Fig. 1 {CPU 2 and Radio Wave Detector Portion or device 5), col. 5, lines 9-14, wherein as discussed above cited CPU and portion or device 5 functioning as "decision maker or decision making source or means", cited "toll collection zone" is the "representative or sample region", the zone or region comprising length or distance: "length of toll collection communication zone is known, col. 8, lines 56-57", and the length or distance is the one where radio signal or reception field strength or intensity is useful or favorable, since it is the zone or coverage are within which communication between communication control unit 6 and road-side machine is possible, col. 5, lines 20-21, and also the reception field strength or intensity is useful or favorable as compared to {than} the radio signal or reception field strength or intensity at entry point or entrance of the zone or coverage area).

Takikita does not teach:

generate distance versus-reception field intensity data.

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However, creating a table or graph with one variable on one side and the other against it {one versus other} is a well known practice in mathematical, statistical and computer arts since long before Applicant's invention.

It would have been obvious to one of ordinary skill in the relevant art at the time of instant invention to advantageously incorporate a tool in vogue, thereby providing a system enabling a user to present information in a comparable form or format, such as hours of vehicle driven and distance covered.

Claim 4. An vehicle-onboard electronic toll collection apparatus according to claim 2,

wherein said decision means is so designed as to convert the distance data to time data based on area entering speed (Inherent, since the feature is so long before practiced in the mathematics art, that at the time of instant invention a user would consider its use as inherent. Example: a vehicle travels 65 miles in 60 minutes, time for traveling 10 miles is 9.2 minutes; i.e., $(65 \times 10)/65 = 9.2$ minutes).

Claim 5. An vehicle-onboard electronic toll collection apparatus according to claim 3,

wherein said decision means is so designed as to convert the distance data to time data based on area entering speed (As discussed above, speed is defined as: $\text{Speed} = \text{distance}/\text{time}$, therefore $\text{time} = \text{distance}/\text{speed}$ and a user would employ the above cited formula).

Claim 6. An vehicle-onboard electronic toll collection apparatus according to claim 1, further comprising:

image display means for displaying the electronic toll collection information exchanged through said communication means as an image while stopping display of the electronic toll collection information in dependence on a vehicle speed signal outputted from said vehicle speed detecting means (Figs. 7 and 8 described col. 9, line 34 through col. 11, line 5, wherein cited "display 14 displaying toll collection results, such as toll to be paid, col. 11, lines 3-4" indicating reference's teaching "a display means displaying alpha-numerical values in graphical or image form", and the displayed "toll collection" representing "toll or electronic toll collection". The graphical or image display resulting from "the communication or exchanging of information between the vehicle-mounted unit and road-side toll collection machine, col. 11, lines 35-41".

Similarly, "display 42 showing the position on a map and also the speed of the vehicle, Fig.5, col. 8, lines 35-42" indicating that the display 42 is a graphical or image depiction or display" means, and the message "stopping" depicting on display 14, col. 7, lines 14-17, after required speed were calculated or detected and vehicle speed control 30 instructed to stop the vehicle, col. 7, lines 1-14 and thereafter toll collection ends, col. 7, lines 18-19 recited with lines 23-45 and Fig. 6 {S55 to S57 and S53 through S61}" indicating "toll collection display process ending or stopping occurring when vehicle speed determined as required, such as 0 kph, col. 7, line 12, and the vehicle stops". In other words ending or stopping of displaying of toll or electronic toll collection depending on or "in dependence of" the vehicle speed displayed or outputted from speed detecting

unit 41 {same as 31 in Fig. 1} in system 40 {same as 30 in Fig. 1} on display 42 of the system 31).

Claim 7. An vehicle-onboard electronic toll collection apparatus according to claim I, further comprising:
voice output means for generating a synthesized voice message signal for prompting change of speed of the motor vehicle in dependence on a vehicle speed signal outputted from said vehicle speed detecting means, for thereby outputting said message in voice (Col. 5, lines 35-37 recited with col. 11, lines 31-32, wherein "display portion or device 14 comprising voice generating device" pointing to reference's producing or generating "output" as "voice message" and "display message showing a message to decelerate the vehicle" indicating altering or changing the speed and it would occur when above discussed speed detector sends a message which is displayed or outputted on 14, Fig. 1 or 42, Fig. 5).

Allowable Subject Matter

5. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments in respect of claims 1 and 2, filed April 20, 2004, have been fully considered and are moot in view of the new ground of rejection.


Regarding argument relative to claim 6, Applicant is requested to peruse the instant Office Action wherein more elucidate citations and better elaborations have been provided.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Irshadullah whose telephone number is 571-272-6731. The examiner can normally be reached Monday-Friday from 10:00 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


M. Irshadullah
June 22, 2005


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